

# Reducing E-Cigarette Use Among Youth and Young Adults Toolkit for Health Care Providers





# Table of Contents

- About This Toolkit ..... 4
- About E-Cigarettes ..... 4
- Health Effects ..... 5
- Tobacco Use Screening and Assessment ..... 8
- Texas Tobacco Quitline ..... 10
- Pharmacotherapy ..... 12
- Billing Codes ..... 14
- Resources ..... 16
- Conclusion ..... 19
- Appendix A: Assessment of Substance Use Intervention Frameworks to Address  
Tobacco Use ..... 20
- Appendix B: Youth and Young Adult E-Cigarette Use Key Messages ..... 22

## About This Toolkit

### Target Audience:

This toolkit is intended for any health care provider that interacts with youth and young adult patients who use e-cigarettes. This includes, but is not limited to, physicians, nurses, clinic staff, hospital staff, dentists, community health workers, public health professionals, and behavioral health professionals.

### Terminology:

The following terms are used throughout the toolkit:

- Tobacco: Tobacco refers to all tobacco products.
- Tobacco Products: Tobacco products include, but are not limited to, cigarettes, cigars, hookah, e-cigarettes, dip, snuff, snus, and dissolvable products.
- Electronic Cigarettes: Electronic cigarettes (e-cigarettes) go by many names, including, but not limited to, electronic nicotine delivery systems, vapes, vape pens, e-cigars, and hookah pens. They may also go by the product brand name (e.g., JUUL, VUSE). In this toolkit, these products are collectively referred to as e-cigarettes.
- Youth: Youth refers to children and adolescents ages 17 and younger.
- Young Adults: Young adults refer to adults ages 18-24.

### Health Care Provider Role in Tobacco Cessation:

Health care providers are valuable partners in tobacco cessation and can effectively assist and motivate people in quitting tobacco product use. In fact, cessation rates improve when a health care provider spends as little as three minutes giving advice to patients on tobacco cessation.<sup>1</sup>

### How to Use This Toolkit:

The purpose of this toolkit is to provide current information on youth and young adult e-cigarette use as well as tobacco cessation resources available to Texas residents.

This toolkit also aims to support health care providers' existing tobacco use intervention efforts. It offers flexibility to meet the needs of different provider and office practices, different youth and young adult patient needs, and seeks to accommodate the busiest health care provider.

Ensuring routine tobacco use screening at every appointment increases the likelihood of successful cessation among youth and young adult patients.



### About E-Cigarettes

E-cigarettes are tobacco products that come in many shapes and sizes. Some look like conventional cigarettes, cigars, or pipes. Others have a modern, sleek design and look like writing pens, highlighters, USB sticks, or other everyday items. Larger devices such as tank systems, or “mods,” do not look like other tobacco products.

Most e-cigarettes have a battery, a heating element, and a place to hold a liquid (such as a cartridge or pod). The e-liquid usually

<sup>1</sup> U.S. Department of Health and Human Services. (2020). Smoking Cessation. A Report of the Surgeon General.

contains nicotine, flavorings, and other chemicals. As the user draws on the device, the battery heats the e-liquid to produce aerosol (not water vapor). The aerosol is then inhaled into the lungs. This process is known as “vaping.” E-cigarettes are also used to deliver other substances such as tetrahydrocannabinol (THC).

E-cigarettes have been the most commonly used tobacco product among youth and young adults since 2014.<sup>2,3</sup> Flavoring and taste, curiosity, and low perceptions of harm are common reasons youth and young adults start or use e-cigarettes.<sup>4,5</sup>

## Health Effects

Tobacco companies have marketed e-cigarettes as a safer alternative to conventional cigarettes. They have also marketed e-cigarettes as a tool to help adults quit conventional cigarette smoking. However, to date, the U.S. Food and Drug Administration (FDA) has not approved any e-cigarette for smoking cessation. The FDA has also not authorized any companies to make a modified risk claim.<sup>6</sup>

Research on the long-term health and safety consequences of e-cigarette use is still unclear. However, most e-cigarettes contain similar substances that are found in conventional cigarettes such as nicotine, volatile organic chemicals, heavy metals, and carcinogens, all of which can have negative effects on health.<sup>7</sup>

There is also evidence that youth and young adults who use e-cigarettes may be more likely to smoke conventional cigarettes in the future.<sup>8,9</sup>

### Nicotine Addiction:

Nicotine is the chemical responsible for addiction in tobacco products.<sup>10</sup> It is highly addictive and found in conventional cigarettes, cigars, and other tobacco products. Most e-cigarettes contain nicotine.

Nicotine is similar in its addictive capability to controlled drugs with an elevated abuse risk, such as heroin and cocaine.<sup>11</sup> The risk for nicotine addiction depends on the dose of nicotine delivered and the way it is delivered. The potential for addiction increases with the dose delivery rate, the rate of absorption, and the attained concentration of nicotine.<sup>12</sup> The age of initiation also plays a significant role as those who do not start using tobacco by age 18 will most likely never start.<sup>13</sup>

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<sup>2</sup>U.S. Department of Health and Human Services. (2016). E-Cigarette Use Among Youth and Young Adults. A Report of the Surgeon General.

<sup>3</sup>Centers for Disease Control and Prevention. (2023). Youth and Tobacco Use. [cdc.gov/tobacco/data\\_statistics/fact\\_sheets/youth\\_data/tobaccouse/index.htm](https://www.cdc.gov/tobacco/data_statistics/fact_sheets/youth_data/tobaccouse/index.htm).

<sup>4</sup>U.S. Department of Health and Human Services. (2016). E-Cigarette Use Among Youth and Young Adults. A Report of the Surgeon General.

<sup>5</sup>Gentzke, A.S., Wang, T.W., Cornelius, M., et al. (2022). Tobacco Product Use and Associated Factors Among Middle and High School Students — National Youth Tobacco Survey, United States, 2021. *MMWR*. DOI: [dx.doi.org/10.15585/mmwr.ss7105a1](https://doi.org/10.15585/mmwr.ss7105a1).

<sup>6</sup>U.S. Food and Drug Administration. (2023). E-Cigarettes, Vapes, and other Electronic Nicotine Delivery Systems (ENDS). [fda.gov/tobacco-products/products-ingredients-components/e-cigarettes-vapes-and-other-electronic-nicotine-delivery-systems-ends](https://www.fda.gov/tobacco-products/products-ingredients-components/e-cigarettes-vapes-and-other-electronic-nicotine-delivery-systems-ends).

<sup>7</sup>U.S. Department of Health and Human Services. (2016). E-Cigarette Use Among Youth and Young Adults. A Report of the Surgeon General.

<sup>8</sup>Ibid.

<sup>9</sup>National Academies of Sciences, Engineering, and Medicine. (2018). Public Health Consequences of E-Cigarettes.

<sup>10</sup>U.S. Department of Health and Human Services. (2014). The Health Consequences of Smoking: 50 Years of Progress. A Report of the Surgeon General.

<sup>11</sup>U.S. Department of Health and Human Services. (1988). The Health Consequences of Smoking: Nicotine Addiction. A Report of the Surgeon General.

<sup>12</sup>U.S. Department of Health and Human Services. (2014). The Health Consequences of Smoking: 50 Years of Progress. A Report of the Surgeon General.

<sup>13</sup>Ibid.

Nicotine addiction develops as a neurobiological adaptation to chronic nicotine exposure. However, not all forms of nicotine delivery pose equal risk in creating or maintaining nicotine addiction.<sup>14</sup> For example, nicotine replacement therapy (NRT) medications are designed to minimize the risk for addiction and have a low risk of creating addiction.<sup>14</sup> Conversely, e-cigarettes can deliver nicotine levels that are comparable to or even higher than conventional cigarettes.<sup>15</sup>

According to the 1988 U.S. Surgeon General's report and other subsequent research, symptoms associated with nicotine addiction among adults include craving, withdrawal, and unconscious behaviors to ensure consistent intake of nicotine.<sup>16, 17</sup> This includes continued use despite harmful effects or known health problems.

While more research is needed on nicotine addiction among youth and young adults resulting from e-cigarette use, an e-cigarette's capability to deliver similar or higher nicotine amounts compared to conventional cigarettes is a major public health concern. Reported blood levels of nicotine in those who use e-cigarettes are likely to cause physiological changes in nicotine acetylcholine receptors in the brain that would sustain nicotine addiction.<sup>18</sup>



### Youth and Young Adult Exposure to Nicotine:

The adolescent brain is not fully developed until about age 25. Nicotine exposure during adolescence is particularly dangerous as it can harm the developing brain and cause addiction.

Each time a new memory is created, or a new skill is learned, stronger connections, or synapses, are built between brain cells. Youth and young adult brains build synapses faster than adult brains. Nicotine changes the way these synapses are formed.

Compared with older adults, the brains of youth (ages 17 and younger) and young adults (ages 18-24) are more vulnerable to the negative consequences of nicotine exposure. The effects include addiction, priming for use of other addictive substances, reduced impulse control, deficits in attention and cognition, and mood disorders. Further, youth and young adults may use e-cigarettes to relieve stress or anxiety. However, this usage can amplify stress and has been associated with mental health symptoms such as depression.<sup>19, 20</sup>



The use of products containing nicotine in any form among youth, including in e-cigarettes, is unsafe.<sup>21</sup>

<sup>14</sup>Ibid.  
<sup>15</sup>U.S. Department of Health and Human Services. (2016). E-Cigarette Use Among Youth and Young Adults. A Report of the Surgeon General.  
<sup>16</sup>U.S. Department of Health and Human Services. (1988). The Health Consequences of Smoking: Nicotine Addiction. A Report of the Surgeon General.  
<sup>17</sup>U.S. Department of Health and Human Services. (2010). How Tobacco Smoke Causes Disease; The Biology and Behavioral Basis for Smoking-Attributable Disease. A Report of the Surgeon General.  
<sup>18</sup>U.S. Department of Health and Human Services. (2016). E-Cigarette Use Among Youth and Young Adults. A Report of the Surgeon General.  
<sup>19</sup>Lechner WV, Janssen T, Kahler CW, Audrain-McGovern J, Leventhal AM. (2017). Bi-directional associations of electronic and combustible cigarette use onset patterns with depressive symptoms in adolescents. doi.org/10.1016/j.yjmed.2016.12.034.  
<sup>20</sup>Obisesan OH, Mirbolouk M, Osei AD, et al. (2019). Association Between E-Cigarette Use and Depression in the Behavioral Risk Factor Surveillance System, 2016-2017. jamanetwork.com/journals/jamanetworkopen/fullarticle/2756260.  
<sup>21</sup>U.S. Department of Health and Human Services. (2016). E-Cigarette Use Among Youth and Young Adults. A Report of the Surgeon General.

## E-Cigarette Aerosol:

E-cigarette aerosol is not water vapor. Though e-cigarettes generally contain fewer toxicants than combustible tobacco products like cigarettes and hookah, they are not harmless or safe.<sup>22</sup> E-cigarettes can expose youth and young adults to several chemicals with known adverse health effects.

E-cigarette aerosol can contain:<sup>23</sup>

- Nicotine
- Carbonyl compounds like formaldehyde, acetaldehyde, and acrolein
- Heavy metals like nickel, tin, and lead
- Ultrafine particles that can be inhaled deep into the lungs
- Flavoring such as diacetyl, a chemical linked to a serious lung disease known as “popcorn lung”

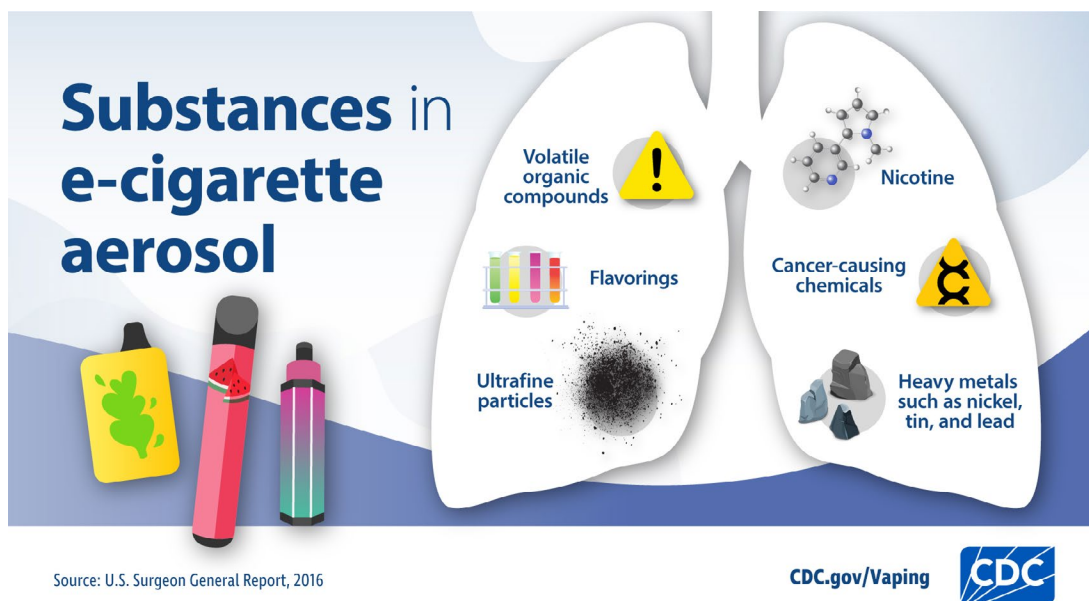
Secondhand and thirdhand aerosol exposes bystanders to these harmful substances.

## Unintended Injuries:

E-cigarettes can also cause unintended injuries, including fires, explosions, and poisonings.

E-cigarette device malfunctions such as defective batteries have caused fires and explosions. Some explosions have resulted in serious injuries and death.<sup>24</sup> In addition, e-liquids can have toxic effects, especially to children, and can cause nicotine poisoning if consumed or absorbed through the skin or eyes. Ingestion of e-liquids containing nicotine can also cause acute toxicity and possibly death if the contents of refill cartridges or bottles containing nicotine are consumed.<sup>25</sup>

From 2010-2023, there were 3,394 calls to the Texas Poison Center Networks for unintentional exposure to e-cigarettes or e-liquids. Of that, 3,285 were for nicotine-related unintentional exposure and 109 were for THC-related unintentional exposure. When assessing unintentional exposure to e-cigarettes or e-liquids by age group, 2,982 were among youth, 21 were among young adults, 214 were among adults ages 25 and older, and 177 were among those with an unknown age. Unintentional exposure to e-cigarettes or e-liquids was highest among youth ages 5 and younger (2,885).<sup>26</sup>



<sup>22</sup>Ibid.

<sup>23</sup>Ibid.

<sup>24</sup>Ibid.

<sup>25</sup>Ibid.

<sup>26</sup>Texas Department of State Health Services. (2024). Texas Poison Center Network Data, 2010-2023.

## Tobacco Use Screening and Assessment

The Texas Tobacco Prevention and Control Program analyzed various substance use intervention frameworks that are commonly used to address tobacco use. For screening and assessment of youth and young adults, the Texas Tobacco Prevention and Control Program recommends using the Ask-Counsel-Treat (ACT) method.

The ACT method was developed by the American Academy of Pediatrics (AAP) in partnership with the Centers for Disease Control and Prevention (CDC) to help support pediatric health care providers in addressing youth and young adult tobacco use, including e-cigarettes, using a three-step process.<sup>27, 28</sup> The ACT method minimizes the time and burden on health care providers in conducting youth and young adult tobacco use screening and assessment and maximizes the patient's chances of successfully quitting tobacco products.

### **ACT Method:**<sup>29</sup>

#### **Ask:**

*Screen for tobacco use with youth and young adults ages 11 and older, during every clinical encounter.*

- Screening should ask about all tobacco products, including e-cigarettes.
  - Self-administered screening may be more effective in promoting youth and young adult disclosure.<sup>30, 31, 32</sup>
  - Self-administered questionnaires (paper or electronic), such as the CRAFFT 2.1+N or S2BI, can save time during patient visits, especially when completed ahead of time.
- Universal screening helps counteract bias in care delivery by ensuring that every patient is asked about tobacco, not just those who are presumed to be at risk of use.
- Workflow may differ across care settings, but screening questions should be standard across the health system.

#### **Counsel:**

*Advise youth and young adults who use tobacco about quitting, regardless of amount used, and have them set a quit date within two weeks.*

- Emphasize the adverse health effects of tobacco use and nicotine addiction.

#### **Treat:**

*Link youth and young adults to appropriate behavioral supports and consider prescribing cessation medication when indicated.*

- Appropriate behavioral and pharmacologic supports may increase the odds of successfully quitting.

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<sup>27</sup>American Academy of Pediatrics Disclaimer: The content provided in the Youth Tobacco Cessation: Considerations for Clinicians document is not necessarily endorsed by Centers for Disease Control and Prevention or the U.S. Department of Health and Human Services.

<sup>28</sup>American Academy of Pediatrics. (2022). Youth Tobacco Cessation: Considerations for Clinicians. [aap.org/en/patient-care/tobacco-control-and-prevention/youth-tobacco-cessation/aap-cessation-resources](https://www.aap.org/en/patient-care/tobacco-control-and-prevention/youth-tobacco-cessation/aap-cessation-resources).

<sup>29</sup>Ibid.

<sup>30</sup>Agley, J, Crabb, DW, Harris, LE, Gassman, RA, Gerke, SP. (2015). An Assessment of SBIRT Prescreening and Screening Outcomes by Medical Setting and Administration Methodology. [ncbi.nlm.nih.gov/PMC/articles/PMC5266453](https://pubmed.ncbi.nlm.nih.gov/PMC/articles/PMC5266453).

<sup>31</sup>Haris SK, Knight JR, Van Hook S, et al. (2016). Adolescent Substance Use Screening in Primary Care: Validity of Computer Self-Administered Versus Clinician-Administered Screening. [ncbi.nlm.nih.gov/PMC/articles/PMC4573375](https://pubmed.ncbi.nlm.nih.gov/PMC/articles/PMC4573375).

<sup>32</sup>Kelly SM, Gryczynski J, Mitchell SG, Kirk A, O'Grady KE, Schwartz RP. (2014). Validity of Brief Screening Instrument for Adolescent Tobacco, Alcohol, and Drug Use. [ncbi.nlm.nih.gov/PMC/articles/PMC4006430](https://pubmed.ncbi.nlm.nih.gov/PMC/articles/PMC4006430).



- Tobacco dependence treatment should be tailored to the youth or young adult’s level of dependence.<sup>33</sup>
- Health care providers should link all youth and young adults to treatment extenders to provide ongoing, targeted cessation support beyond the scope of the clinical/office visit (e.g., Texas Tobacco Quitline).
- Follow up two weeks after their quit date to assess progress and offer additional support.

#### **Youth Tobacco Cessation Progressive Web Application:**

The AAP and CDC have also developed the Youth Tobacco Cessation Progressive Web Application. Health care providers can use this tool to screen youth and young adults for tobacco use via the ACT method at each clinical encounter. The tool can be utilized on a computer, tablet, or as an offline mobile application. It also provides links to behavioral support options and detailed information on pharmacologic support.

#### **From Vapes to Victory: Empowering Teens to Overcome Vaping Training:**

Baylor College of Medicine (BCM) has developed the From Vapes to Victory: Empowering Teens to Overcome Vaping training to help health care providers apply the ACT method to address youth e-cigarette use. Through this training, health care providers will learn how to create impactful messages that resonate with teens and discourage e-cigarette use; formulate a plan for adolescent patients who are not yet prepared to quit using e-cigarettes; and develop a cessation and treatment plan for adolescents who are ready to quit e-cigarette use.



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<sup>33</sup>Farber HJ, Walley SC, Groner JA, Nelson KE, American Academy of Pediatrics Section on Tobacco Control. (2015). Clinical Practice Policy to Protect Children from Tobacco, Nicotine, and Tobacco Smoke. [publications.aap.org/pediatrics/article/136/5/1008/33904/Clinical-Practice-Policy-to-Protect-Children-From?autologincheck=redirected](https://publications.aap.org/pediatrics/article/136/5/1008/33904/Clinical-Practice-Policy-to-Protect-Children-From?autologincheck=redirected).

## Texas Tobacco Quitline

The Texas Tobacco Prevention and Control Program is responsible for administration of the Texas Tobacco Quitline. The quitline provides confidential, free, convenient, and evidence-based cessation services to Texas

residents ages 13 and older to assist them in quitting all tobacco products through individualized support services. When a person is ready to start their quit journey, the Texas Tobacco Quitline can help them act. When combined with ongoing monitoring, support, and treatment, referring patients to the Texas Tobacco Quitline can improve their chances of quitting.<sup>34</sup>

**YES QUIT**  
877-YES-QUIT      YESQUIT.ORG

### Enrollment and Referral:

**Self-enrollment:** Anyone age 13 and older can enroll themselves:

- Online at YesQuit.org OR by phone at 1-877-YES-QUIT (877-937-7848)

**Referral:** A provider can refer individuals to Texas Tobacco Quitline via:

- Paper-based fax referral (available on YesQuit.org)
- Texas Quitline Application referral;
  - Apple devices AND Android devices
- Yes Quit Online Referral Portal
- Electronic health records (EHRs) referral (applies only to eTobacco Protocol integrated EHRs)

**Registration:** During registration, quit coaches ask a number of questions, including demographic questions, like name, insurance, date of birth, etc. Insurance information is collected for informational purposes only and will not be billed.

Quit coaches assess tobacco use, readiness to quit, motivation, and ask related questions.

### Services:

The Texas Tobacco Quitline is accessible through all major mobile and desktop operating systems. Texas Tobacco Quitline services are provided in both English and Spanish. Translation of other languages is available for phone services. All services listed below are free to Texas residents.

### Quit Coaching:

- Up to five quit coaching sessions for those ages 18 and older
  - Three one-on-one quit coaching sessions via phone, chat, or text
  - Two quit coach-led peer support group sessions
    - Participants can choose to swap group sessions with one-on-one sessions.
  - Unlimited inbound sessions (i.e., those who call, chat, or text the quitline)
- Coaching is available on a 24/7 basis except for certain holidays.<sup>35</sup>
- Participants are linked with appropriate resources for comprehensive follow-up support services and local support.
- Cessation support materials are made available upon request.

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<sup>34</sup>Centers for Disease Control and Prevention. (2024). Quitlines and Other Cessation Support Resources. [cdc.gov/tobacco/hcp/patient-care/quitlines-and-other-resources.html?CDC\\_AAref\\_Val=https://www.cdc.gov/tobacco/patient-care/quitlines-other/index.html](https://www.cdc.gov/tobacco/hcp/patient-care/quitlines-and-other-resources.html?CDC_AAref_Val=https://www.cdc.gov/tobacco/patient-care/quitlines-other/index.html).

<sup>35</sup>Holiday closures include July 4th, Thanksgiving Day, Christmas Eve and Christmas Day, and New Year's Eve.

## NRT:

- Eight-week supply of NRT is available for those ages 18 and older who are ready to quit.<sup>36</sup>
- NRT options include patches, gum, and lozenges.
- Participants can also receive combination NRT, which is a short- and long-acting NRT medication used together.
- People with certain medical conditions<sup>37</sup> and pregnant women may receive NRT with a medical override letter from their physician.

## Other Services:

- Group video sessions
- Informational resources for lung cancer screening
- The ability for physicians to pre-authorize NRT via fax form<sup>38</sup> or the Yes Quit Online Referral Portal when referring patients
- Detailed outcome reports are sent to Health Insurance Portability and Accountability Act-covered health care providers upon outcome established by referred patient.

## **Participant Tracks:**

### Youth Digital Program Track for Ages 13-17:

- In February 2022, the Texas Tobacco Quitline updated and replaced the traditional youth phone program with a new Youth Digital Program.
- The program is designed to meet youth where they are at and to reach them in the way they prefer: through digital content, chat, and text.
- The youth program is delivered through an online dashboard, which includes chatting with a coach, videos, animations, podcasts, quizzes, and action cards.
- The program consists of six steps in which youth will progress week to week and takes six to nine weeks to complete, depending on the quit date.
- While the program addresses all tobacco products, there is a focus on e-cigarettes because they remain the most popular product among youth.
- The content is adapted for youth and includes topics and actions relevant to them, including, but not limited to, keys to quitting, health impacts, peer pressure, barriers to quitting, triggers, and slips and sticking with the goal.



### General Track for Ages 18 and Older:

- For the general track there is a total of five quit coaching sessions.
  - Enrollment is combined with the first quit coaching call.
- Sessions can be one-on-one with a quit coach (call, text, or chat) or through a group video.
- Each participant has a plan that is tailored to their needs.
- Services include NRT screening and dosing, quit coaching, education, and appropriate support materials to assist those attempting to quit.
- After five sessions, participants can continue to call in for support as needed.

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<sup>36</sup>Combination NRT means Texas Tobacco Quitline participants receive a short- and long-acting NRT product together. Combination NRT has the strongest, positive documented effect on tobacco cessation outcomes.

<sup>37</sup>Specific medical conditions (e.g., a recent heart attack, etc.) will be screened for during the first quit coaching session. The quit coach will determine whether a medical override is necessary.

<sup>38</sup>Fax referral forms can be found at [YesQuit.org](https://www.yesquit.org).

### Special Populations Tracks for Ages 18 and Older:

- **Pregnant/Postpartum Track:**

Pregnant women and postpartum women up to one year post-birth are eligible to receive eight-week and combination NRT and up to seven quit coaching sessions through tailored pregnancy and postpartum Texas Tobacco Quitline cessation services. A physician's waiver is required for pregnant women to receive NRT.

- **Behavioral Health Track:**

People with mental health conditions are eligible to receive eight-week and combination NRT and up to seven quit coaching sessions through tailored behavioral health Texas Tobacco Quitline cessation services.

- **Menthol Track:**

People who use menthol cigarettes or cigars are eligible to receive eight-week and combination NRT and up to five quit coaching sessions through tailored and enhanced menthol-specific Texas Tobacco Quitline cessation services.

### Live Vape Free Program:

A stand-alone and complimentary program to the Texas Tobacco Quitline, the Live Vape Free Program is an interactive e-cigarette cessation program for youth and young adults ages 13-26.

This program helps youth and young adults:

- Learn about the harms of e-cigarettes.
- Hear from their peers.
- Have a place to take action once they are ready to quit.

The Live Vape Free Program is only accessible through self-enrollment. Youth and young adults can enroll in the program online at [LiveVapeFree.com](http://LiveVapeFree.com) or by texting VAPEFREE to 873373.

## Pharmacotherapy

Pharmacotherapies for the treatment of nicotine dependence are known to double long-term quit rates and help patients who use tobacco products. If patients are interested in quitting and do not have a medical contradiction to NRT or bupropion SR, pharmacotherapy may be an option for them. The medications listed below are currently approved by the FDA for tobacco cessation.<sup>39, 40</sup> The Public Health Service's Clinical Practice Guideline for Treating Tobacco Use and Dependence has more detailed information on prescribing and dosing pharmacotherapy, and the CDC Office on Smoking and Health has a helpful Quit Smoking Medicines web tool.

Except for varenicline,<sup>41</sup> the FDA has not approved other tobacco cessation pharmacotherapies for youth under age 18. Any use with youth is considered off-label and requires a prescription.



<sup>39</sup> U.S. Department of Health and Human Services. (2020). Smoking Cessation. A Report of the Surgeon General.

<sup>40</sup> U.S. Food and Drug Administration. (2023). Want to Quit Smoking? FDA-Approved and FDA-Cleared Cessation Products Can Help. [fda.gov/consumers/consumer-updates/want-quit-smoking-fda-approved-and-fda-cleared-cessation-products-can-help](https://www.fda.gov/consumers/consumer-updates/want-quit-smoking-fda-approved-and-fda-cleared-cessation-products-can-help).

<sup>41</sup> Varenicline is FDA-approved for ages 17 and older.

## FDA-Approved Tobacco Cessation Medications

Prescription Medications That Do Not Contain Nicotine		
Bupropion SR	This medication is appropriate for first line use in treating tobacco use and is available by prescription only. Patients should start this medication one to two weeks before they quit smoking and will take it for seven to 12 weeks.	Trade Names: • Wellbutrin • Elontril • Zyban
Varenicline	This medication is appropriate for first line use in treating tobacco use and is available by prescription only. Patients should start this medication one week before their quit date and will take it for three months.	Trade Names: • Chantix • Champix
Prescription Medications That Contain Nicotine		
Nicotine Inhaler	This medication is appropriate for first line use in treating tobacco use and is available by prescription only. Patients should start this medication one to two weeks before they quit smoking and will take it for seven to 12 weeks.	Trade Names: • Wellbutrin • Elontril • Zyban
Nicotine Nasal Spray	This medication is appropriate for first line use in treating tobacco use and is available by prescription only. Patients should use one to two doses per hour, increasing as needed for symptoms, and will take it for three to six months. Patients should not exceed five doses per hour or 40 doses per day.	Trade Names: • Nicoderm • Commit • Nicorette • Others*

Over-the-Counter Medications		
Nicotine Gum**	This medication is appropriate for first line use in treating tobacco use and is available only over the counter. Patients can take it for up to 12 weeks. One piece every one to two hours during weeks one through six. One piece every two to four hours during weeks seven through nine. One piece every four to eight hours during weeks 10 through 12. Patients should not exceed 24 pieces per day.	Trade Names: • Nicoderm • Commit • Nicorette • Others*
Nicotine Lozenge**	This medication is appropriate for first line use in treating tobacco use and is available only over the counter. Patients can take it for up to 12 weeks. One lozenge every one to two hours during weeks one through six. One lozenge every two to four hours during weeks seven through nine. One lozenge every four to eight hours during weeks 10 through 12. Patients should not exceed 20 lozenges per day.	
Nicotine Patch**	This medication is appropriate for first line use in treating tobacco use and is available by prescription or over the counter. The dosage of this medication is individualized and based on patient characteristics. Patients can take it for eight to 10 weeks. Patients should rotate patch application site daily and not apply a new patch to the same skin site for at least one week.	

\*Denotes that there may be additional NRT medications other than those listed.

\*\*Denotes NRT medications offered for free by the Texas Tobacco Quitline.

## Billing Codes

Billing codes are numbers assigned to tasks and services offered by health care providers. Codes are used to track and bill medical, surgical, and diagnostic services. These codes are also used by health care providers and payers to make the billing process consistent and to help reduce errors.<sup>42</sup>

The billing codes below are based on the American Lung Association's billing guide and are some of the most common when dealing with tobacco screening, cessation, and prevention related to e-cigarettes. However, prior to use, it is always a good idea for health care providers to confirm with insurance plans that the codes will be accepted as valid for determination of coverage.

### International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM)

There are two common ICD-10-CM codes for tobacco use: ICD-10 F17 codes and Z codes. The F codes are from the Mental and Behavioral Disorder category.<sup>43</sup> The F17 codes are used if patients are dependent on tobacco, and the F17.29 series can be used for e-cigarettes.<sup>44</sup> The Z codes are used if there is not dependence on tobacco and cannot be combined with an F17 code.<sup>45</sup>

#### ICD-10-CM Codes for E-Cigarettes:

F-17 Codes	Description
F17.290	Nicotine dependence, other tobacco product, uncomplicated.
F17.291	Nicotine dependence, other tobacco product, in remission.
F17.293	Nicotine dependence, other tobacco product, with withdrawal.
F17.298	Nicotine dependence, other tobacco product, with other nicotine-induced disorders.
F17.299	Nicotine dependence, other tobacco product, with unspecified nicotine-induced disorder.

Z Codes	Description
Z77.22	Contact with and suspected exposure to secondhand smoke. May not be used with a F17.2 tobacco dependence or Z72 tobacco use code.
Z71.6	Tobacco counseling and medical advice.
Z72.0	Problems related to lifestyle and tobacco use not otherwise specified.
Z87.891	Personal history of nicotine dependence. May not be used with F17.2 current nicotine dependence code.
Z13.89	Encounter for screening for other disorder. Use for tobacco use screening.

<sup>42</sup>American Medical Association. (2023). CPT Purpose and Mission. [ama-assn.org/about/cpt-editorial-panel/cpt-purpose-mission](https://www.ama-assn.org/about/cpt-editorial-panel/cpt-purpose-mission).

<sup>43</sup>American Lung Association. (2021). Billing Guide for Tobacco Screening and Cessation. [lung.org/getmedia/275e15df-413d-450f-9bed-b98a9f-b04e1a/ala-billing-guide-2021.pdf](https://www.lung.org/getmedia/275e15df-413d-450f-9bed-b98a9f-b04e1a/ala-billing-guide-2021.pdf).

<sup>44</sup>Ibid.

<sup>45</sup>Ibid.

## Current Procedural Terminology (CPT) Codes

Maintained by the American Medical Association, CPT codes provide a uniform mechanism for describing services and procedures among health care providers, payers, and patients.<sup>46</sup>

### CPT Codes for E-Cigarettes:

CPT Code	Service Type	Description
99406	Intermediate counseling cessation treatment	Tobacco use cessation counseling visit greater than three minutes, but not more than 10 minutes.
99407	Intensive counseling	Tobacco use cessation counseling visit is greater than 10 minutes.
99381-99397	Preventive medicine services	Comprehensive, preventive evaluation based on age and gender to include appropriate history, examination, counseling/anticipatory guidance, risk factor reduction interventions, and related plan of care.
99201-99205	New patient	Time-based Evaluation and Management, can include minimal counseling for tobacco use ≤ three minutes.
99211-99215	Established patient	Time-based Evaluation and Management, can include minimal counseling for tobacco use ≤ three minutes.

This is not an exhaustive list. More comprehensive resources are available and include the American Lung Association's Billing Guide for Tobacco Screening and Cessation and the AAP's Tobacco/E-Cigarette Use/Exposure Coding Fact Sheet for Primary Care Pediatrics.

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<sup>46</sup>Ibid.

## Resources

### Texas Resources

#### **E-Cigarette Cessation Programs for Youth and Young Adults:**

- Texas Tobacco Quitline

The Texas Tobacco Quitline offers free, confidential, and convenient cessation services to Texas residents ages 13 and older. This includes quit coaching, eight-week NRT, combination NRT, and a Youth Digital Program for those ages 13-17. Texas residents ready to quit can call 877-937-7848 (877-YES-QUIT) or visit YesQuit.org.

- Live Vape Free Program

A standalone and complimentary program to the Texas Tobacco Quitline, the Live Vape Free Program is an interactive e-cigarette/vaping cessation program for youth and young adults ages 13-26. Youth and young adults can enroll in the program online at LiveVapeFree.com or by texting VAPEFREE to 873373.

- American Lung Association's (ALA) Not On Tobacco (N-O-T)

N-O-T is the ALA's voluntary tobacco and vaping cessation program and is offered to teens ages 14–19 in Dallas County, Texas. The program consists of 10 sessions. During these sessions, participants identify their reasons for using tobacco, including e-cigarettes; healthy alternatives to tobacco use; and people who will support them in their efforts to quit. Teens ages 14-19 in Dallas County can enroll by calling 214-819-5115 or visiting Dallas County Teen Tobacco and Vaping Cessation Program webpage.

- Truth Initiative's This is Quitting

This is Quitting is a free, text-based program developed by the Truth Initiative to help teens and young adults quit vaping. The University of Texas MD Anderson Cancer Center has partnered with the Truth Initiative to offer this program to Texas individuals ages 13-24. Teens and young adults can text "VAPEFREETX" to 88709 to sign up for the program.

#### **Resources for Health Systems/Clinics**

- The University of Texas at Austin's eTobacco Protocol

The eTobacco Protocol is a cessation referral process that is integrated into a health system's electronic medical record. The Protocol prompts health care providers to assess their patient's readiness to quit tobacco within 30 days. With the patient's approval and the click of a button, health care providers can electronically refer patients to the Texas Tobacco Quitline. A quitline coach will then call the patient within 48 hours. Health systems/clinics can call 512-232-9307 to learn more about the eTobacco Protocol.



## **National Resources**

### **E-Cigarette Cessation Programs for Youth and Young Adults:**

- **Be Vape Free Self-Paced Modules**  
Be Vape Free is brought to you by the CVS Health Foundation, CATCH Global Foundation, and Discovery Education. Elementary, middle school, and high school students can get the facts on vaping and e-cigarette use through self-paced modules by visiting [BeVapeFree.org/Students](http://BeVapeFree.org/Students).
- **ALA's Lung Helpline and Tobacco Quitline**  
The ALA Lung Helpline can assist teens ages 13-17 in quitting tobacco, including vaping. The Lung Helpline is available via phone at 800-LUNGUSA or online at [Lung.org](http://Lung.org).
- **ALA's NOT For Me**  
NOT For Me is a free self-guided, mobile-friendly, online program that leverages the ALA's N-O-T program. It includes eight self-paced sessions to help teens break nicotine dependency, whether they vape, smoke, or use other tobacco products. Teens ages 14-19 can register at [NotForMe.org](http://NotForMe.org).
- **Quit VET**  
Quit VET is a free telephone quitline provided by the U.S. Department of Veterans Affairs (VA). Quit VET offers tobacco cessation coaching to any veteran who receives their health care through the VA. Counseling sessions are available in English and Spanish. To get started, veterans can call 1-855-784-8838 (1-855-QUIT-VET).
- **National Cancer Institutes' (NCI) Smokefree Teen Quit Vaping**  
Smokefree Teen is part of the NCI's [Smokefree.gov](http://Smokefree.gov) initiative. Teens ages 13-17 can make a personalized quit plan and find helpful tips and strategies for tackling cravings, bad moods, and other situations where teens may vape. Teens can start building a quit plan by visiting [teen.smokefree.gov/quit-plan](http://teen.smokefree.gov/quit-plan).

### **Educational Resources for Healthcare Providers and Professionals:**

- **ALA's ACT to Address Youth Cessation Training**  
The ALA has developed this one-hour, online course based on the AAP's Youth Tobacco Cessation: Considerations for Clinicians. The training outlines the steps of ACT and provides guidance, support, and best practices for effectively delivering ACT as a brief intervention for adolescents who use tobacco products, including e-cigarettes. Continuing medical education credits are available for physicians. The ALA has also created an ACT Quick Reference Guide.
- **AAP's E-Cigarettes and Vaping and Cessation Resources**  
Find quick facts about e-cigarettes, training and educational videos, and other resources on the AAP's E-Cigarettes and Vaping and Youth Tobacco Cessation webpages. Pediatric health care providers can also find practical advice and considerations for helping young patients quit tobacco use on the AAP's Youth Tobacco Cessation: Considerations for Clinicians webpage.

- [BCM's From Vapes to Victory: Empowering Teens to Overcome Vaping Training](#)  
BCM has developed this training to help health care providers apply the ACT method to address youth e-cigarette use. Through this training, health care providers will learn how to create impactful messages that resonate with teens and discourage e-cigarette use; formulate a plan for adolescent patients who are not yet prepared to quit using e-cigarettes; and develop a cessation and treatment plan for adolescents who are ready to quit e-cigarette use. Continuing medical education credits are available for physicians and advanced practice providers.
- [CDC E-Cigarettes and Patient Care](#)  
The CDC has a list of resources with the latest information and science about e-cigarettes and to help you start conversations about this topic with patients of all ages.
- [Substance Abuse and Mental Health Services Administration \(SAMHSA\) Reducing Vaping Among Youth and Young Adults](#)  
This SAMHSA guide supports health care providers, systems, and communities seeking to prevent vaping. It describes relevant research findings, examines emerging and best practices, identifies knowledge gaps and implementation challenges, and offers useful resources.

#### **Resources for Health Systems/Clinics:**

- [ALA's Billing Guide for Tobacco Screening and Cessation](#)  
The ALA has created this billing guide to help providers with the provision and payment of tobacco cessation services. This guide includes an overview of cessation coverage requirements for Medicare, Medicaid, and private insurance and guidance on how to properly code for tobacco-related diagnoses and services.
- [AAP and CDC's Youth Tobacco Cessation Progressive Web Application](#)  
Health care providers can use this tool to screen youth and young adults for tobacco use via the ACT method at each clinical encounter. The tool can be utilized on a computer, tablet, or as an offline mobile application. It also provides links to behavioral support options and detailed information on pharmacologic support.
- [Stanford Medicine's E-Cigarette Fact Sheets and Posters](#)  
These fact sheets, developed by Stanford Medicine, can be used as handouts or posted in clinics to educate patients about the harms of e-cigarettes.

## Conclusion

Health care providers are valuable partners in tobacco cessation and can effectively assist and motivate people in quitting tobacco product use.

This toolkit provides current information on youth and young adult:

- E-cigarette use
- Tobacco screening and assessment
- Tobacco cessation services and resources available in Texas

The toolkit also offers flexibility to meet the needs of different providers and office practices, different youth and young adult patient needs, and can accommodate the busiest health care providers.

Lastly, people who do not start using tobacco by age 18 will most likely never start.<sup>47</sup> Nearly nine out of 10 people who smoke (about 87 percent) started smoking by age 18, and nearly 99 percent started by age 26.<sup>48</sup> Ensuring routine tobacco use screening at every appointment increases the likelihood of successful cessation among youth and young adult patients.

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<sup>47</sup>Centers for Disease Control and Prevention. (2023). Youth and Tobacco Use. [cdc.gov/tobacco/data\\_statistics/fact\\_sheets/youth\\_data/tobacco\\_use/index.htm](https://www.cdc.gov/tobacco/data_statistics/fact_sheets/youth_data/tobacco_use/index.htm).

<sup>48</sup>U.S. Department of Health and Human Services. (2014). The Health Consequences of Smoking—50 Years of Progress. A Report of the Surgeon General.

## Appendix A: Assessment of Substance Use Intervention Frameworks to Address Tobacco Use

Method	The 5As	The 5Rs	ACT	AAR	AAC
Description	<p>The 5As (Ask, Advise, Assess, Assist, Arrange) summarize all the activities that a health care provider can do to help a person who uses tobacco within three to five minutes. This method guides a health care provider through the process of talking to patients who are ready to quit about tobacco use and deliver advice.</p> <p><b>Ask:</b> Ask all patients about tobacco use.</p> <p><b>Advise:</b> Advise all patients who use tobacco to quit.</p> <p><b>Assess:</b> Assess willingness to quit now.</p> <p><b>Assist:</b> Assist patients who use tobacco with a quit plan.</p> <p><b>Arrange:</b> Arrange follow-up with the patient. (bit.ly/4eE0tT9)</p>	<p>The 5Rs (Relevance, Risks, Rewards, Roadblocks, Repetition) should be addressed in a motivational counseling intervention to help people who are not ready to quit tobacco use.</p> <p><b>Relevance:</b> Encourage patients to indicate why quitting is personally relevant.</p> <p><b>Risks:</b> Ask patients to identify potential negative consequences of tobacco use.</p> <p><b>Rewards:</b> Ask patients to identify potential benefits of quitting.</p> <p><b>Roadblocks:</b> Ask patients to identify barriers to quitting.</p> <p><b>Repetition:</b> Repeat intervention every time unmotivated patients visit. (bit.ly/4eE0tT9)</p>	<p>ACT (Ask, Counsel, Treat) addresses youth and young adult (ages 11-24) tobacco use, including e-cigarettes, using a three-step process.</p> <p><b>Ask:</b> Screen for tobacco use with all youth and young adults during every clinical encounter.</p> <p><b>Counsel:</b> Advise all youth and young adults who use tobacco to quit and have them set a quit date within two weeks.</p> <p><b>Treat:</b> Link youth and young adults to appropriate behavioral supports and consider prescribing cessation medication when indicated.</p> <p>After the visit, follow-up to assess progress and offer support. (bit.ly/3W1KjvF)</p>	<p>AAR (Ask, Advise, Refer) is an abbreviated version of the 5As, a method designed to facilitate the routine assessment of tobacco use; delivery of brief advice; and referral of people who want to quit to evidence-based cessation treatment. The AAR method takes only three to five minutes and has been shown to increase the number of quit attempts and the number of people who quit for good.</p> <p><b>Ask:</b> Ask about tobacco product use.</p> <p><b>Advise:</b> Advise about the benefits of quitting, and the support available.</p> <p><b>Refer:</b> Refer people who are ready to quit to resources such as cessation counseling and medication. (bit.ly/4cDQxXX)</p>	<p>AAC (Ask, Advise, Connect) is a method designed to address clinic- and patient-level barriers to evidence-based treatment dissemination by connecting people who use tobacco with treatment through an automated connection system.</p> <p><b>Ask:</b> Ask all patients about their smoking status at every visit.</p> <p><b>Advise:</b> Advise all patients who smoke to quit.</p> <p><b>Connect:</b> Directly connect patients who are ready to quit to the quitline by using an automated link in the EHR system that automatically sends patient information to the quitline. (bit.ly/3xrnJmH)</p>

Method	The 5As	The 5Rs	ACT	AAR	AAC
<b>Differences</b>	<p>The 5As method is aimed towards people who are ready to quit. (bit.ly/4eE0tT9) (bit.ly/3VLa8hU)</p>	<p>The method is aimed towards people who are not ready to quit. (bit.ly/4eE0tT9)</p>	<p>The method is aimed toward people who are youth and young adults, ages 11-24. (bit.ly/3W1KjvF)</p>	<p>The AAR method is quick and easy to use and ensures that every person that uses tobacco products is offered support to quit. (bit.ly/4cDQxXX)</p>	<p>The AAC method must be fully integrated into an EHR system.</p>
	<p>The method provides a practical framework for identifying and assisting adolescents who use tobacco. (bit.ly/3W2W6Zt)</p>	<p>The 5Rs puts the thought of quitting in a patient’s mind and an invitation can be extended for them to come back if they change their mind. (bit.ly/4eE0tT9) (bit.ly/3VLa8hU)</p>	<p>The ACT method can be implemented in two to three minutes. (bit.ly/3zmhjpk)</p>	<p>The AAR method can be implemented in three to five minutes. (bit.ly/4cDQxXX)</p>	<p>One study found that when compared with the AAR method and where “Refer” only included a quitline referral card (i.e., patients were not directly connected to the quitline), AAC had a 13-fold increase in the proportion of people who use tobacco enrolling in treatment via the quitline. (bit.ly/4cmAfDc)</p>
	<p>CDC recommends this method as an option. (bit.ly/2rm2nB9)</p>	<p>The method can be used with youth that are uncertain about quitting. (bit.ly/4cB7B0H)</p>		<p>CDC recommends this method as an option. (bit.ly/4cgn4Uj)</p>	
	<p>Research has found that health care workers do not always perform the 5As completely, and organizational support may be needed to implement “Assist” and “Arrange.” (bit.ly/4cA1NV8)</p>			<p>Research has found that there were some instances where health care workers offered people who were ready to quit tobacco a quitline referral card and encouraged them to call on their own instead of providing direct referrals to the quitline. (bit.ly/4cmAfDc)</p>	

## **Appendix B: Youth and Young Adult E-Cigarette Use Key Messages**

These key messages provide a high-level summary of important information covered in the toolkit. Health care providers can use the following key messages when talking to parents or guardians about e-cigarettes, their health effects, and cessation.

### **About E-Cigarettes:**

- E-cigarettes are tobacco products that come in many shapes and sizes.
- Some look like conventional cigarettes, cigars, or pipes while others can have a modern design (e.g., pens, highlighters, USB sticks, other everyday items).

### **How E-Cigarettes Work:**

- Most e-cigarettes have a battery, a heating element, and place to hold a liquid (such as a cartridge or pod).
- The e-liquid usually contains nicotine, flavorings, and other chemicals.
- As the user draws on the device, the battery heats the e-liquid to produce aerosol (not water vapor). This process is known as “vaping.”

### **Not FDA-Approved for Tobacco Cessation:**

- Tobacco companies have falsely marketed e-cigarettes as a safer alternative to conventional cigarettes.
- They have also falsely marketed e-cigarettes as a tool to help adults quit smoking. The FDA has not approved any e-cigarette for smoking cessation to date.

### **Health Effects:**

- Research on the long-term health effects of e-cigarette use is still unclear.
- Most e-cigarettes contain nicotine, heavy metals, and cancer-causing chemicals, which are known to have negative health effects.
- There is also evidence that youth and young adults who use e-cigarettes may be more likely to smoke conventional cigarettes in the future.

### **Nicotine Addiction:**

- Nicotine is as addictive as heroin and cocaine.
- Symptoms of nicotine addiction include cravings, withdrawal, and continued use despite health problems.

### **Youth and Young Adult Usage:**

- Since 2014, e-cigarettes have been the most commonly used tobacco product among youth and young adults.
- Flavoring and taste, curiosity, and low perceptions of harm are common reasons youth and young adults start or use e-cigarettes.

### **Youth and Young Adult Exposure to Nicotine:**

- The use of e-cigarettes or any product with nicotine in any form among youth and young adults is dangerous.
- The adolescent brain is not fully developed until about age 25 and is more vulnerable to the negative effects of nicotine.
- Youth and young adult exposure to nicotine can harm areas of the brain that control attention, learning, memory, mood, and impulse control.

### **E-Cigarette Aerosol:**

- E-cigarette aerosol is not water vapor, and it is not harmless.
- E-cigarette aerosol can contain nicotine, cancer-causing chemicals, and heavy metals such as lead.
- Secondhand and thirdhand aerosol exposes bystanders to harmful substances.

### **Unintended Injuries:**

- Defective e-cigarette batteries have caused fires and explosions. Some explosions have resulted in serious injuries and death.
- Children and adults have been poisoned by swallowing, breathing, or absorbing e-cigarette liquid through their skin or eyes.

### **Quitting and Free Tobacco Cessation Services:**

- The Texas Tobacco Quitline offers free, confidential, and convenient cessation services to Texas residents ages 13 and older. Call 877-937-7848 (877-YES-QUIT) or visit [YesQuit.org](http://YesQuit.org).
  - o This includes quit coaching, up to eight weeks of NRT, combination NRT, and a Youth Digital Program for those ages 13-17.
- The Live Vape Free program is also available for youth and young adults ages 13-26 and offers an interactive e-cigarette cessation program. Youth and young adults can enroll online at [LiveVapeFree.com](http://LiveVapeFree.com) or by texting VAPEFREE to 873373



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